

## STATEMENT OF BASIS

as required by LAC 33:IX.2411, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0118346; AI86234; PER20090001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The permitting authority for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality  
Office of Environmental Services  
P. O. Box 4313  
Baton Rouge, Louisiana 70821-4313

**I. THE APPLICANT IS:** Lafourche Parish Sewer District No.1  
Country Club Subdivision Wastewater Treatment Plant  
P.O. Box 5548  
Thibodaux, LA 70302

**II. PREPARED BY:** Darlene Bernard

**DATE PREPARED:** May 21, 2009

**III. PERMIT ACTION:** Reissue LPDES permit LA0118346, AI86234  
LPDES application received: January 6, 2009

LPDES permit effective: February 1, 2004  
LPDES permit expired: January 31, 2009  
EPA has not retained enforcement authority

**IV. FACILITY INFORMATION:**

A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the Country Club Subdivision.

B. The permit application does not indicate the receipt of industrial wastewater.

C. The facility is located in the Country Club Subdivision at the end of Fairway Drive, in Thibodaux, Lafourche Parish.

D. The treatment facility consists of an Extended Aeration Steel Treatment Plant. Disinfection is by Chlorination.

**E. Outfall 001**

Discharge Location: Latitude 29°46'39" North  
Longitude 90°47'53" West

Description: treated sanitary wastewater

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Design Capacity: 0.30 MGD

**NOTE:** The previous permit was issued for a design capacity of .20 MGD. A facility inspection report dated 07-02-08 revealed that the facility was in the final stages of installing a new .30 MGD treatment plant. Based on information obtained from the inspection report and the renewal application, the permit is being issued for a design capacity of .30 MGD.

Type of Flow Measurement which the facility is currently using:

V-notch Weir with flow meter (Totalizing)

V. **RECEIVING WATERS:**

The discharge is into Bayou Cutoff, thence into Lake Fields in segment 120302 of the Terrebonne Basin. Segment 120302 of the Terrebonne Basin is listed as impaired for Nutrients (Nitrate + Nitrite as N), Organic enrichment/low DO, and Phosphorus. The TMDL for segment 120302 was finalized on April 15, 2008. This TMDL establishes load limitations for oxygen-demanding substances and goals for reduction of those pollutants. LDEQ's position, as supported by the declaratory ruling issued by Secretary Givens in response to the lawsuit regarding water quality criteria for nutrients (*Sierra Club v. Givens*, 710 So.2d 249 (La. App. 1<sup>st</sup> Cir. 1997), writ denied, 705 So.2d 1106 (La. 1998), is that when oxygen demanding substances are controlled and limited in order to ensure that the dissolved oxygen criterion is supported, nutrients are also controlled and limited. The TMDL states that existing point sources have little to no impact on the main stem of Bayou Folse and require no changes to their permitted discharges. Limits were set according to this TMDL. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by additional water quality studies and/or TMDLs.

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**Nutrients (Nitrate + Nitrite as N), Organic enrichment/low DO, and Phosphorus**

To protect against the potential for oxygen consuming pollutants that could cause instream DO problems and for the discharges of organic materials, and nutrients at levels exceeding state water quality standards, BOD<sub>5</sub> limitations have been placed in the permit.

The previous permit contained reporting requirements for Ammonia Nitrogen. These reporting requirements were for informational gathering purposes because the receiving waterbody was listed as impaired for Nutrients. However, since the issuance of the previous permit, a TMDL has been completed and as a result of this TMDL, the reporting requirement for Ammonia Nitrogen has been removed from the permit.

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The designated uses and degree of support for Segment 120302 of the Terrebonne Basin are as indicated in the table below<sup>1/</sup>:

Overall Degree of Support for Segment 120302	Degree of Support of Each Use						
Partial	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
	Full	Full	Not Supporting	N/A	Full	N/A	Full

<sup>1/</sup>The designated uses and degree of support for Segment 020601 of the Terrebonne Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Volume 5; Part B, Water Quality Inventory respectively.

#### VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 120302 of the Barataria Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated November 17, 2008 from Rieck to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

#### VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

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**VIII.**

**PUBLIC NOTICE:**

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the fact sheet. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

The public notice is published in a local paper of general circulation and the Office of Environmental Services Public Notice Mailing List.

For additional information contact:

Darlene Bernard  
Permits Division  
Department of Environmental Quality  
Office of Environmental Services  
PO Box 4313  
Baton Rouge, LA 70821-4313

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**IX. PROPOSED PERMIT LIMITS:**

**Final Effluent Limits:**

**OUTFALL 001**

Final effluent limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

<b>Effluent Characteristic</b>	<b>Monthly Avg. (lbs./day)</b>	<b>Monthly Avg.</b>	<b>Weekly Avg.</b>	<b>Basis</b>
BOD <sub>5</sub>	25.02	10 mg/l	15 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this treatment type and size, and TMDL dated April 15, 2008 for Bayou Folsé/Bayou Cutoff Watershed.
TSS	37.53	15 mg/l	23 mg/l	Since there are no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.

**Other Effluent Limitations:**

**1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.a, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are

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being proposed through Best Professional Judgment in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) **pH**

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) **Solids and Foam**

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

**X. PREVIOUS PERMITS:**

<b>LPDES Permit No LA0118346:</b>	<b>Issued:</b>	January 7, 2004
	<b>Effective:</b>	February 1, 2004
	<b>Expired:</b>	January 31, 2009

**During the period beginning the effective date of the permit and lasting through the expiration date of the permit (Design 0.2 MGD)**

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Monthly Avg.</u>	<u>Weekly Avg.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Continuous	Recorder
BOD <sub>5</sub>	10-mg/l	15-mg/l	2/month	Grab
TSS	15 mg/l	23 mg/l	2/month	Grab
Ammonia-Nitrogen	Report	Report	2/month	Grab
Fecal Coliform	200	400	2/month	Grab
pH	6-9 Standard Units		2/month	Grab

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**XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:**

**A) Inspections**

A review of EDMS indicates the following inspections were performed for this facility:

**Date – September 19, 2008**

**Findings and/or Violations:**

A Hurricane Assessment Inspection was conducted, by telephone, to assess damages to the wastewater treatment plant from Hurricane Ike. The treatment plant lost power for five days after the storm and was back on the power grid September 17, 2008. The facility's golf course lift station was flooded during the storm. The plant was operating at the time of the telephone inspection.

**Date – September 7, 2008**

**Findings and/or Violations:**

A Hurricane Assessment Inspection was conducted to assess damages to the wastewater treatment plant from Hurricane Gustav. Structural damage of the wastewater treatment plant and/or units not observed. Plant lift station operating on grid. All wastewater treatment plant units operational except aeration blowers/diffusers. Mixed liquor black in color, but not yet nitrifying. Clarifier appeared turbid but normal. Chlorine pumps appeared operational, but chlorine tank volume and injection unknown. Effluent discharging to receiving stream was turbid.

**Date – July 2, 2008**

**Findings and/or Violations:**

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Inspection conducted in response to citizens complaint of backups/overflows from the collection system along with reported excessive noise and odors from the plant. The Sewer District is installing a .30 MGD plant which is operational except for the chlorine contact chamber. The facility has a problem with the aerator/blower motor which is currently causing excessive noise and vibration. The Engineering Firm EES is exploring solutions to the problem. The odor appears to be caused by inadequate maintenance to the fan screen and removal of solid waste recovered from it on a frequent enough basis. Regarding collection system problems, the sewer plant is pricing the installation of a backup generator for the lift pump at the plant. They have also contacted Entergy regarding pruning trees which are causing the power outages, as well as an alternate electrical feed to the plant. Facility representative was notified that all overflows from the collection system should be reported to LDEQ and properly cleaned. Also, the facility needs to submit a new permit application to LDEQ to reflect the increased flow at the new plant.

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**B) Compliance and/or Administrative Orders**

A review of EDMS revealed a Memo to File dated March 6, 2009, in reference to previously issued Consolidated Compliance Order & Notice of Potential Penalty WE-CN-00-0332 (April 10, 2001) and Notice of Potential Penalty WE-PP-02-0008 (October 8, 2003). The Consolidated Compliance Order & Notice of Potential Penalty (WE-CN-00-0332) was issued citing the unauthorized discharges of untreated wastewater from a lift station and its associated treatment plant. The Notice of Potential Penalty (WE-PP-02-0008) was issued citing the unauthorized discharges that had already been addressed in the Consolidated Compliance Order & Notice of Potential Penalty (WE-CN-00-0332). The Notice of Potential Penalty (WE-PP-02-0008) addressed operation and maintenance deficiencies, but were not cited. Since both the Consolidated Compliance Order & Notice of Potential Penalty WE-CN-00-0332 and Notice of Potential WE-PP-02-0008 cite the same instances of unauthorized discharges and the Respondent applied for and was issued LPEDS permit LA0118346, it was recommended that the Department take no further action regarding WE-CN-00-0332 and WE-PP-02-0008 and the inspection referrals that they reference and consider these cases closed.

**C) DMR Review**

A review of the discharge monitoring reports for the period beginning January 1, 2007 to December 31, 2008 has revealed the following violations:

<u>Effluent Characteristic</u>	<u>Number of Violations</u>
BOD <sub>5</sub> - (concentration)	0
BOD <sub>5</sub> - (mass)	0
TSS - (concentration)	0
TSS-- (mass)	0
Fecal Coliform	0
pH	0

**NOTE:** There were no DMR's on file from April, 2007 to June, 2007 and January, 2008 to June, 2008.

**XII.****ADDITIONAL INFORMATION:**

**Final effluent loadings** (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.3 MGD.



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Effluent loadings are calculated using the following example:

$$\text{BOD: } 8.34 \text{ gal/lb} \times 0.3 \text{ MGD} \times 10 \text{ mg/l} = 25 \text{ lb/day}$$

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between 0.1 and 0.5 MGD.

<u>Effluent Characteristics</u>	<u>Monitoring Requirements</u>	
	<u>Measurement</u>	<u>Sample</u>
	<u>Frequency</u>	<u>Type</u>
Flow	Continuous	Recorder
BOD <sub>5</sub>	2/month	Grab
Total Suspended Solids	2/month	Grab
Ammonia-Nitrogen	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
pH	2/month	Grab

**Pollution Prevention Requirements**

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report **each year** for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. Please make additional copies to be utilized for each year of this permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

<b>Audit Period Begins</b>	<b>Audit Period Ends</b>	<b>Audit Report Completion Date</b>
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

**XIII.****TENTATIVE DETERMINATION:**

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

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## XIV.

REFERENCES:

Louisiana Water Quality Management Plan, Vol. 10, "Wasteload Allocations and Discharger Inventory", Louisiana Department of Environmental Quality, 1992.

Louisiana Water Quality Management Plan, Vol. 5-B, "Water Quality Inventory", Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards", Louisiana Department of Environmental Quality, 1999.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 23 - "The LPDES Program", Louisiana Department of Environmental Quality, 1999.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Lafourche Parish Sewer District No. 1, Country Club Subdivision Wastewater Treatment Plant, January 6, 2009.

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